/13 cont./

phenomena created little gods, in contrast to the reasoning which assures us of the existence of a single God.

Creative is this Indian imagination which models their character and fills the world with fantastic beings! /14/

Chapter IV

Are the Indians Sad or Happy?

31. Contradictory evidence. 32. Somatic happiness and psychological happiness. 33. Under a humble cloak.... 34. The joke. 35. Religious anxiety?

C
114 31. Humboldt says, speaking of the Chaima Indians:
157 "Taciturn, without joy, turned in on himself, he affects a grave and mysterious air. When someone has lived a brief time in the missions and when he has not yet become familiar with the aspect of the Indians, he finds himself tempted to take their indolence and the dullness of their faculties as an expression of melancholy and a propensity to meditate."

P Diametrically opposed to this judgment is Simpson's,
114 who, speaking of the Kamarakoto, says: "They are quite the
157 opposite of withdrawn and silent.... On the contrary, their chatter is interminable and their faces constantly have their emotions shining through. The usual expression on the face is
P a broad smile, and any amusing incident makes them burst
[522] out in loud guffaws. They have an acute sense of humor and are always joking. They are very inclined to tell jokes." (P. 600.)

P
128 The difficulty inherent in reducing to a single category all the individuals of a single tribe (however small it may be) is clear, not to mention doing it for different tribes, although

/14 cont./

128 they might be of the same race. It is known that not even the fingers of the hand are the same, nor are there two faces alike, nor two perfectly equal characters. Apart from this, this question is very complex: somatic and psychological. A brief stay among them and a superficial knowledge of their language (the liveliest expression of the soul) cannot give more than glimpses and more or less erroneous conclusions. By contrast, a long stay with them of ten years, intimate, familiar, and colloquial, I believe gives me a certain authority to touch upon the subject.

152 32. Breaking down, in order to clarify and define well, we encounter, on the first level, a somatic, or, more specifically, a facial, gaiety.

114 In this sense the lack of vivacity can be noted in the ex-
152 pression of all of their passions, those of love as well as those of hate, in the Indians. I am in agreement with Humboldt in that the semi-immobility of the features is a characteristic feature of native tribes; and I am greatly surprised /15/ by Simpson's statement about the habitual smile and even more by the loud guffaws and that they are always good natured.
[142] Quite the contrary, Indians, by their physiognomy, look like silhouettes cut out with scissors or bronze statues in the temple of fatalism; with their eyes half open and downcast, "as though drowsy with lassitude," the nose flat, the forehead low, and the lips thick and coarse, they have (as Humboldt says) "rather more a tribal or group physiognomy than the personal physiognomy of a given individual."

33. But the German explorer warns us that we must not take for melancholy the indolence and dullness or lack of vivacity. We must further bear in mind that every race has its standard of expression and of beauty, which might not be exactly the Hellenic or Caucasian ones. And thus, as the proverb says that "under a humble cloak there hides a good drinker," so also behind an amorphous face that might perhaps

Simpson N-5 (1939) 1941
SS16 Pemon SS16
Kamara Koto
Taurepan

136 occurring in a transitional zone within the Neotropical realm and still relatively unaffected by human interference. Some collecting has already been done there, but the fauna is not yet well known and further field work is needed.

197 126 It would be confusing to attempt to trace names through every known dialect, even in this central region, so that only four of major importance will regularly be cited (when the words are on record) and others mentioned only if some name in them happens to have special interest. Aside from Kamarakoto and Taurepán, the languages to be cited regularly are Makuchi, south and east of the Arekuna-speaking area, in northern Brazil and southwestern British Guiana, and Kaliña, spoken mostly in Dutch Guiana, a dialect of "Carib" in the strictest sense (not the broader sense used here, much as a "Roman" language might contrast with a "Romance" language). Other languages incidentally mentioned are Akawai, spoken generally in western British Guiana and into Venezuela, northeast and east of Arekuna; Galibi, a dialect very near Kaliña, spoken in the coastal region between Cayenne and Paramaribo; Trio, spoken in southern Dutch Guiana; Vaikiri, spoken on the Xingu in Brazil; and Chayma and Cumanagoto, formerly spoken in the northeastern coastal region of Venezuela. Arawak is, of course, a whole family of languages like Carib and the several Arawak names cited here (mostly from de Goeje) are in the dialect of Dutch Guiana as far as that differs from the rather uniform language of the main bodies of Guiana Arawaks. Tupi-Guaraní designates another great family of languages spoken along the Amazon and south to the Río de la Plata. The "Lingoa geral" is a more or less standardized form of Tupi, proper, widespread as a means of communication among the diverse natives of Brazil and it is this form that is cited.

[p. 2-B]

114 had none of the usual executive tasks or camp work to do or to supervise and was able to devote all my waking hours to the study of the Indians. This had the effect of giving me about twice as much work time as would have been available under the usual circumstances of such expeditions and enabled me to do a great deal more than I could ordinarily have hoped to do in the few weeks available.

115 This study was also exceptionally favored by the employment of Antonio
124 Montesdeoca and his assignment to me as interpreter and general informant. He is a full-blooded member of the tribe and thoroughly acquainted with its language and with all its customs. He is also a man of importance in the tribe whose instructions and wishes were always fully carried out by the other Indians. At the same time, he has received some schooling in a Venezuelan town and so was able to convey all the desired information to me in comprehensible Spanish. He was very co-operative, intelligent, and quick-witted. Statements that appeared at all doubtful were not recorded on his authority alone and I took every opportunity to check them in all directions (never finding that he had willfully misled me) but he was my main informant and he spent many hours and days patiently showing and explaining to me everything possible. This was ideal assistance and it, too, made it possible to gather far more and better information than could have been hoped for.

126 A very considerable collection of almost all the portable objects in use in the tribe was also made and this was generously presented by the Ministry of Fomento to the American Museum of Natural History where I have been able to study it at leisure.

101 From Kamarata we were flown to Santa Elena by James Angel, whom I
114 also wish to thank, as well as the Linea Aeropostal which flew us in to Kama-
121 rata and out from Santa Elena. At the latter place we remained for about ten
122 days, the purpose being not a study of the Indians there, the Taurepanes, for their own sake but for comparison. As I have remarked, the Taurepanes are relatively well known scientifically and my brief observations were only for the purpose of permitting a first-hand comparison with the Kamarakotos, giving more reality to the literature for me, and supplying a few needed data still lacking in the literature. Here the hospitality and assistance of Dr. Fernández-Peña were of the greatest value and I wish also to thank the reverend fathers of the Capuchin mission for their friendly interest and whole-hearted co-operation.

122 The materials so gathered have been worked up at the American Museum
128 of Natural History in New York, and acknowledgments are due to that institution for the considerable amount of my time and for many facilities afforded for this work, which is outside the field of the work for which I am there regularly employed.

128 I am indebted to several persons for assistance with various details.
J. Martínez-Mendoza A., of Caracas, and Charles B. Hitchcock, of New York.

examined many maps and determined the first appearance of the name of this tribe on a map. Gene Weltfish, of New York, gave advice and references concerning phonetics. E. W. Berry, of Baltimore, gave information on the antiquity of Musa and Dioscorea in America. A. Jahn, of Caracas, gave some suggestions concerning the name and history of the tribe. Of course, none of these authorities is responsible for the use I have made of their information, and in one or two cases my opinions differ from theirs, although mine could not have been formed without the aid of theirs.

Finally, it should be mentioned that my wife, Dr. Anne Roe, accompanied me throughout the field work. The observations on women's dresses were made by her and the judgment of the psychological characters of the Indians is in part based on her expert opinion. She has helped also in other less definite respects.

The phonetics represent in the main the pronunciation of Antonio Montesdeoca, who speaks Kamarakoto as his native language and without an accent recognizable by other members of the tribe. Most words were also heard from one or many non-Spanish-speaking Indians and the very few anomalies in pronunciation noted or reconciled.

The descriptions of material culture are fairly full and can hardly involve any serious misapprehensions, for I was able to see, handle, draw or photograph, and often to collect practically everything made or used by the Indians.

As regards the far more difficult problems of social culture, my observations are necessarily less complete. The best work in this field requires years of residence, fluent grasp of the local dialect, and the complete confidence of the Indians. I had only a few weeks and of course the other requirements could not be met in that time. Before I left, however, and in time to be of material aid, I had enough Indian words at least to be sure that my interpreter was really giving me the gist of what was said and to acquire some information without his aid. There was naturally some reticence on certain points but in almost all cases this was largely broken down before I left. Although many of the more esoteric details could not be obtained in the time available, the general outline and many details of social culture were obtained and these were so carefully checked that I feel confident of their essential accuracy except where I have explicitly stated doubts.

In this connection there is one deliberate omission. Everything pertaining to health, disease and medicine was assigned for study to the medical doctor who accompanied the party and is therefore omitted from this monograph. In dealing with some essentially non-medical subjects it was necessary to touch briefly on this field, for instance, approximate vital statistics were incidental to census taking and somatic records, and exorcism as a medical procedure had to be mentioned in connection with magic and religion. Everything strictly or primarily medical is, however, purposely left out. There are,

for instance, no discussions of childbirth, puberty, menstruation, the couvade, herb and other material remedies, or the incidence of specific diseases.

It should further be noted that words in italics (aside from obvious taxonomic terms or other manifestly different usages) are Indian words given according to the phonetic system explained here and that they are in the Kamarakoto dialect unless otherwise stated. Indian words that have been Hispanicized or Anglicized are in ordinary type.

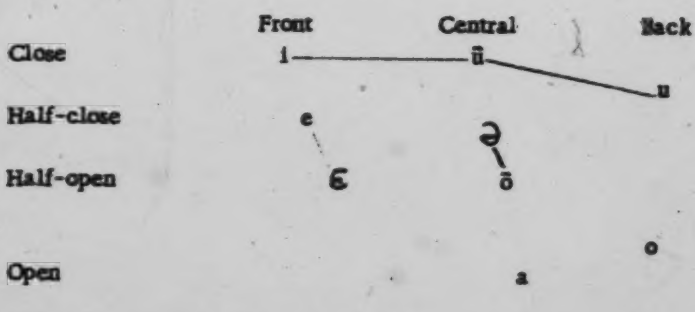
A frequent source of confusion in the literature is that the word "Carib" is sometimes applied to the whole, diverse mass of Indians who speak languages or dialects of this group, from Central America and the West Indies to Southern Brazil, and sometimes to some particular tribe or smaller group of tribes, especially the Galibis or Kalinas. Unless I am quoting an author whose usage is doubtful, I use the unmodified word "Carib" only in its broadest sense and do not apply the name specifically to any smaller unit.

194 Although the fact is well known it should be added that different speakers
● 128 or the same speaker at different times will often say the same word in distinctly different ways. It would be possible to write many or all of these Indian words in some other way and still to have them as nearly "correct" as they are here. I can only say that, given the definitions of my symbols, I have heard each word pronounced by a native about or exactly as I write it and that I believe these to be the "standard" or "received" Kamarakoto pronunciations as spoken in and immediately near Kamarata. As a practical test, I could read over my transcriptions of Indian expressions after the auditory memory of them was vague or lost and the Indians invariably understood them easily, even though they occasionally corrected slight shades of sound.

194

Vowels.

Simple vowels. The nine vowel phonemes definitely distinguished may be represented as follows:



i, u, and a are essentially as in Spanish.

e is about as in Spanish, except that in Spanish it includes members that approach ɛ, which is a separate phoneme in Kamarakoto. ɛ is a more open and slightly more posterior sound than e, similar to the English e as in "pen." e and ɛ intergrade in Kamarakoto, a fact charted by inserting a line between them, [11] but their principal members are quite distinct.

a is similar to Spanish a but is an open intermediate vowel resembling the non-Spanish ɔ but more open. It sometimes differs from o (or also from ɔ) rather by a more open, less rounded lip position than by a decided difference in tongue position.

The greatest peculiarity of the Kamarakoto vocalic system, especially in comparison with Spanish, is its possession of a series of distinct central vowels, whereas practically all the Spanish vowels are near or on the anterior and posterior sides of the vowel triangle. I have been able to distinguish three

[11] [see footnote on p. 306, category 116 - Analysis]

Vocabulary

192 Estimates of total vocabulary are necessarily very rough, but the nature of its known vocabulary and the number of words recorded in the best-known allied dialects suggests that Kamarakoto probably has about two thousand distinct words, if simple compounds, grammatical forms, phonetic variants, and suffixes be excluded.[39] The vocabulary here given may thus fall short of one-third of the words in the language, but it includes most of the more common and useful words and is full enough for entirely adequate demonstration of the character and affinities of the dialect.

192 Many of the words in the following vocabulary are compared with those 197 of other Carib dialects, especially with Taurepan and Makuchi, because both 128 of these are closely related to Kamarakoto and they are well known. To save space, not all words are so compared, but enough to show the relationships fully. Citations from other students give the name of the latter in parentheses, and when no name is given (all Kamarakoto words and many in Taurepan), the word was recorded by me. All Indian words given without the name of another tribe are Kamarakoto and under each entry the first word given is Kamarakoto.

192 The authorities most cited are Koch-Grünberg (Taurepan, Ingariko, and 197 occasionally other dialects), Williams (Makuchi) and Adam and de Goeje (all 114 other dialects). Words from Adam were almost always and from de Goeje usually recorded in the first instance by other authors, but it is more convenient for present purposes to cite these compilations rather than the very dispersed original publications. Koch-Grünberg gave his vocabularies in complex fairly [104] close transcription. To facilitate comparison and simplify printing, I have here put them into my own broad transcription, and I have occasionally taken similar, but lesser liberties with words cited from other authors. This may occasionally slightly misrepresent the exact sound intended, but it seems both necessary and justified. Readers interested in these other dialects for their own sake and not simply for comparison with Kamarakoto will, of course, consult the original publications.

I am not publishing comparisons with the scanty Arekuna vocabularies of the two Schomburgks and Appun nor with the better Arekuna vocabulary of Koch-Grünberg. For dialect comparisons within the Arekuna language, accurate comparison is possible or necessary only with Taurepan. The non-Taurepan words in these Arekuna vocabularies (none of them specifically Kamarakoto except three given by Koch-Grünberg as already mentioned) are too uncertain as to exact origin and status within the varied Arekuna dialects to make comparison profitable.

39 [see footnote on p. 310, category 116 — Analyst]

601
[128] The following relationship words are merely listed here for completeness as it is necessary to define them in detail on a latter page.

Brother, sister:

49. pasi
50. akon
51. upi uyadetə
52. pirika
53. paruchi uyadetə
54. parachi
55. ʰriiiko (see discussion below)
56. yakon

Child:

57. ʰmanon (see below)
58. ʰurun (see below)
59. yentsi
60. mumun, (u)mo

Adopted child:

61. narimanga

Parent:

62. ʰpaikõi (see below)
63. papai
64. san
65. yun

Spouse:

66. ʰtamupüi (see below)
67. ʰnopüi (see below)

Grandparent:

68. ʰnoiˀ (see below, under nopui)
69. ʰtamo (see below, under nopui)

Grandchild:

70. paˀ

Nephew, niece

71. poitoru
72. patsɛ

Relatives by marriage:

73. payunu
74. payun
75. nopuyun
76. yawoiˀ-pə
77. tamõipuyun
78. yetsɛ
79. yeruiˀ

The vowels are, so to speak, separated by a silent r. But the word is reduced to two syllables in one Taurepán variant and also in Oyana ini, Trio eni and Kaliña yene (all from de Goeje).

133. Cassava. Cassave (the prepared bread) — eke.

134. Stone for roasting cassave — puitari. Taurepán, putari. This Carib root is the origin of the colloquial Venezuelan word "budare."

135. *Grater for cassave — samaːri. Taurepán, sumaːri.

136. *Hollow log for holding grated cassave — moru. Taurepán, muru.

137. *Hollow log for making kachiri — wateːa. Taurepán, kanwa. kuriyara. The Kamarakoto word is probably the same as (Venezuelan) Spanish batea, also applied to a gold-pan (see below). The Taurepán words are the same as those applied to a dugout canoe, which is their primary meaning.

.For plants and animals eaten see the respective lists and for other utensils see basketry, etc.

c. Basketry. The words under this heading are only listed without definition. The objects to which they apply are more fully described in the later section on basketry. The complex and somewhat different Taurepán basket nomenclature is also given in that section.

138.	œapa	146.	akaiˀ
139.	pangaiˀ	147.	koataiˀ
140.	tangōiˀ	148.	wapa
141.	matuːtu	149.	ɛno-saramba
142.	o. olori	150.	sokoˀ
143.	waricha	151.	kumara-katɛaˀ
144.	warakapi	152.	wakawaˀ
145.	amaːtu	153.	(t)ɛiya-potapə

(muroiˀ, No. 104. tɛimuiˀ, No. 99. and mōi-yɛ, No. 98. are also basketry).

Most of these words resemble fairly typical and common Carib roots but given the enormous variety of baskets made by these tribes it is not surprising that no two apply all these words in exactly the same way and that each tribe has some words not used by its neighbors. Thus in Taurepán waikarapə, a word not used in Kamarakoto, includes a considerable variety of baskets most of which the Kamarakotos would separate as waricha or wapa, words which my Taurepán informants did not know.[49] The Taurepánes apply the similar word warockmpa to one type of waikarapə, and the Kamarakotos have a third similar word, warakapi, which denotes a type of basket unknown to my Taurepan

[49] [see footnote on p. 311, category 116 — Analyst]

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but doubtless the plantain). I believe this to be the Spanish word "plátano." The equation pl- = kur- is not unlikely in these dialects and the long a in the antepenult suggests some peculiar history such as derivation from a word with an accent on that syllable.

401. *Another variety ("plátano altón" in local Spanish) — paruru. Taurepán, paruru. This word appears with some variations in practically all Carib dialects and in most vocabularies it is defined simply as "banana." It has become one of the most widespread of native names for the banana, although the Kamarakotos explicitly confine it to one sort, not the most common, of plantain. The probable history of the word (drawing heavily on Nordenskiöld, 1922, and other authorities) is that it is an old Carib root for the inedible native "wild banana," Heliconia ("bijao" in local Spanish) that was spontaneously applied to the similar introduced Musa, with varying exact application among the various different sorts of Musa.

●[128]

So few students have recorded variety names for these fruits that it is futile to attempt to trace the relationship of these. It is curious that no Indians appear to use any word related to the colloquial Venezuelan "cambur."

824 241 402. Papaya, = Carica papaya — mapada.

[192] 192 403. Watermelon — patiya. This is of very recent introduction and the name is the Venezuelan Spanish "patilla." This word is, indeed, supposed to be of Carib derivation (which is strange since the plant is African) but it apparently reached the Kamarakotos through Spanish and not direct from its Carib cognates.

404. Bright yellow, somewhat tomato-like fruit — pupu.

405. Corn (maize) — anai'.

406. Chile pepper, (= Capsicum sp.): Small, elongate, red variety — polopakai'

407. Small, yellow variety — adamaka:yena

408. Large, round, red variety — paradan

409. Very small, round, red variety — pariyana

410. Ovate, red variety — churu

411. Round, yellow variety — kurapupai'

*192
*197

kenke that is not too wildly conjectural.

*192 Of the "Ancient Kamarakoto" words, it can be said that 1, 3, 5, 6, and
*197 8 are rather surely Carib. Four, 7, and 9 might be but the evidence is poor.
●128 Two is wholly uncertain. Four is suggestive of Arawak, but not conclusively, and the list as a whole is definitely not Arawak. It is interesting that 1 and 5 quite definitely and 4 and 9 vaguely and uncertainly suggest true Carib roots that are absent or strongly modified in modern Kamarakoto. Since the Kamarakotos could hardly invent these resemblances to dialects unknown to them, these words thus tend to confirm their claim that the list represents a real and distinctive language now extinct.

Without placing too much reliance on it, this curious lot of words is consistent with the Kamarakoto claim that their present language has replaced another. If so, the ancient language was apparently also Carib, but probably was a distinct language and not simply an ancestral form of Kamarakoto. The list is obviously insufficient to establish the closer affinities of the extinct tongue. The whole problem is highly conjectural, but it is possible that some of the Kamarakoto words that differ radically from Taurepán may have been derived from this extinct Carib language.

Spanish Influence in Kamarakoto.

*192 The Kamarakotos, as a tribe, have had very little contact with Spanish-
177 speaking peoples and the influence of Spanish on their language is almost negligible. The following words of Spanish origin were heard in use by Kamarakotos who did not otherwise speak Spanish:

*192

Kamarakoto	Spanish	Remarks
[[171]] alakaputsa	arcabuz (arquebus, archaic word for gun)	This is a very old borrowing, spread from tribe to tribe among almost all Indians of this region. The Indians, and most Spanish-speaking travelers, are quite unaware that the word is Spanish.
sara:sa	zaraza	Not, as in Spanish, a particular kind of cloth but

Materials.

28
•128 Textiles in general and those of American (especially North American) Indians in particular have been elaborately studied and classified. Their classification and treatment depend in the first place on the materials used, in the second place on the techniques of manufacture, and in the third place on the forms and uses of the finished objects. All three of these phases are treated in the present section.

Nearly all the textile materials known to man fall into the following classification, in which the types used by Kamarakotos are starred:

283 • I. Flexible fibers twisted or spun for use (mainly cloth materials).
- A. Animal.
  - a. The various animal wools. (Kamarakotos have none.)
  - b. The various silks. (Kamarakotos use none.)
- *B. Vegetable.
  - *a. Woolly – cotton and analogous fibers, spun for use. (Kamarakotos use cotton; have kapok but do not spin it.)
  - *b. Fibrous, bast and analogous fibers twisted for use. (Kamarakotos use two of these, specified below.)
- C. Synthetic – necessary to complete the classification but obviously with no bearing on primitive races.

285 • II. Flexible (or relatively inflexible but elongate) materials used without twisting (mainly basketry materials).
- A. Animal – sinews, strips of hide, etc. (relatively unimportant and not used by Kamarakotos). Quills and a few other still less important materials might also be placed here.
- *B. Vegetable.
  - *a. Round.
    - 1. Bundles, of grass or any straight, flexible material. (Not used by Kamarakotos.)
    - *2. Stems, of reeds, vines, bamboos, willows, etc. (Kamarakotos make limited use of a vine.)
  - *b. Flat.
    - *1. Leaves, or segments of them, rushes, palms, etc. (Kamarakotos use palm leaves.)
    - *2. Split materials, split reeds, bark, and wood. (Kamarakotos make extensive use of split reeds, but do not use bark or wood, strictly speaking.)

285 824 Any flexible vine may be used for cord, but the only one commonly used for textile work (traps and a few baskets) is tsimo?, "bejuco de alambrito" in colloquial Venezuelan (but this term is applied to various small vines and I do not know the botanical name of this particular one).[140] This vine is peeled, occasionally split and trimmed, and gives a basket-material of Class II-B-a-2 of the classification given above.

By far the commonest and most important of basket materials, however, is a split reed, probably Ischnosiphon sp., called "tirita" or "tiriti," in Venezuelan Spanish, and manare in Kamarakoto.[141] These reeds are split longitudinally into segments (usually eight in number) and the pith is cleaned from each. The green epidermis is usually removed, but may be left. The outer (convex) surface is sometimes painted black with pot soot, for weaving patterns, but usually they are left of the natural color which is pale yellow, turning pale brown, for the peeled, and pale green, turning a darker brown, for the unpeeled segments.

The only other basket material of any importance is a vine (actually a palm with the habit of a vine) called wadapi, a species of Desmoncus, "camuare" in local Spanish, closely allied to the well-known "albarico" of northern Venezuela. Suitably split and flexed, this gives a flat wicker of rich, dark brown color. I saw no baskets made entirely of this among the Kamarakotos, but they commonly use it for the color contrast as an occasional strand in a basket otherwise made of manare.

Spinning and Twisting.

283 114 ●128 Throughout the great South American textile area, variations in technique are numerous and characteristic and have been made the subject of an important monograph by Frödin and Nordenskiöld (1918). The present section will briefly describe the Kamarakoto variations of these processes and will fit them into the distributional pattern that Frödin and Nordenskiöld have established.

283 171 For spinning cotton, the Kamarakotos use a true spindle (Fig. 35), such as occurs all over South America except in the farthest south and a few isolated areas (e.g. on the upper Rio Negro and Yapura). Within a more limited area, Im Thurn and others have shown that the Caribs almost all use spindles and spin cotton while the Arawaks often do not, using twisted fibers instead, except under apparent Carib influence.

Frödin and Nordenskiöld divide South American spindles into the Bororó-type, in the Andes and the far southern or southwestern Amazon Basin, and the Bakairí-type, practically everywhere on the continent. The Kamarakoto spindle belongs, of course, to the latter type, with its lower end thickened and only roughly rounded, the whorl wedged onto this and adapted for vertical spinning, and the thread wound on the working end above the whorl.

140, 141 [See footnotes on p. 323, category 116 - Analyst]

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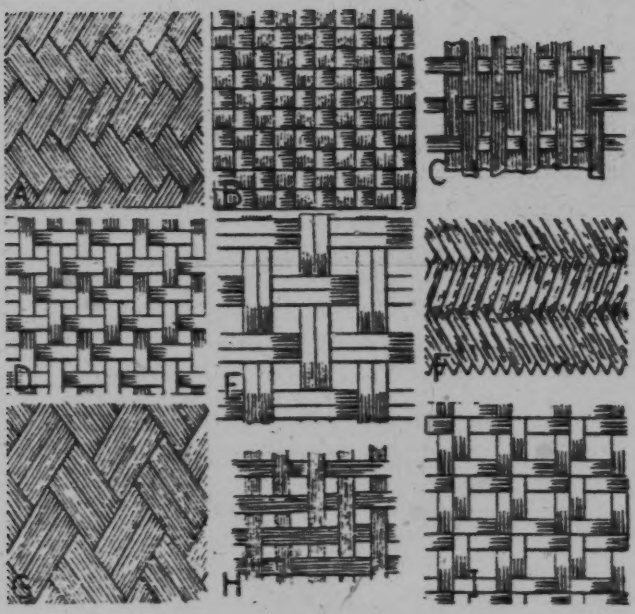

Fig. 50 — Guayana Indian Basketry Techniques.
Kamarakoto unless otherwise noted.

A, One-over-two twilled woven plaiting. B, closed checked woven plaiting. (After Roth, Makuchi.) C, half-open, one-over-one, checked woven plaiting. D, open, one-over-one, checked woven plaiting. (After Roth, Siuai.) E, open, two-over-two, checked woven plaiting. (After Roth, Patamona.) F, all-over, one-over-four, twilled woven plaiting. G, all-over, two-over-three, twilled woven plaiting. H, all-over, open, single-strand, one-over-two twilled woven plaiting. I, all-over, open, paired-interwoven-strand twilled woven plaiting. (After Roth, Makuchi.)

*285 nor do they use special baskets for religious purposes, or in connection with burial rites.

● [128] In attempting a summary of this abundant and complex material it is convenient to consider first the basic techniques involved, the way in which the materials are united to form basketry textiles, and next the forms, functions, and nomenclature of the objects produced. Basketry is here taken to include all textile work made of untwisted materials, as opposed to the thread-textiles and thread-and-bead textiles, and so includes such things as mats and trays that are not, strictly speaking, baskets.

*285 Technique. Indian basketry has been intensively studied in North America and
114 several similar classifications of techniques have been based on those studies.
For present purposes reference should be made particularly to Mason (1904),
[171] Kissell (1916), and Weltfish (1930). The basketry of the northeastern part of
South America, essentially a single culture area in this respect and one of which
the Kamarakotos form an integral and typical part, has not been so carefully
studied. Mason and some other students of North American basketry have men-
tioned it more or less incidentally and there are at least two excellent special
studies, by Schmidt (1904) and by Roth (1924 and 1929). Practically all trav-
elers in this region have mentioned basketry and many have figured or described
various baskets, but without making any great contribution to classification and
detailed understanding of techniques or of objects made of basketry. Even
Koch-Grünberg, whose work is so thorough and extensive, says little of im-
portance regarding basketry among the Taurepáne or other tribes that he studied.

*285 The following classification of techniques, although including almost
● 128 all known, is made from the special point of view of the work of the Kamara-
kotos and their cultural allies. It is based especially on synthesis of the views
of the five authorities cited above, as well as on the specimens themselves.
Techniques positively known among the Kamarakotos are starred. Those that
have not been surely identified among the Kamarakotos but are present in more
or less typical form in this broader cultural area are marked with a dagger, †.
Those unmarked do not occur here, or occur only as rare and decidedly atypical
variants.

*285 *1. Elements of approximately equal size and flexibility and all more or less
active----------PLAITING.

*A. Elements approximately parallel at start (worked together) (always
worked in two directions)----------Plain Plaiting.

†1. Simply alternating quadrangles------Checked Plain Plaiting.

*2. In stepped or more complexly alternating
quadrangles[146]----------Twilled Plain Plaiting.

*1 over 2.

Etc.

*B. Elements at angles to each other at start (one set or more woven
across the others)----------Woven Plaiting.

*1. Elements in two directions

*a. Regularly alternating quadrangles----Checked Woven
Plaiting.

†Closed

*Half-open (one set of elements open, the other closed).

*1 over 1

*1 over 2

Etc.

146 [see footnote on p. 324, category 116 - Analysis]

*285

2. Warps in more than one direction----------Lattice Wicker.

†B. Weft twined (two or more intertwined strands in each weft element)----------Twined Weave.

†1. Warp in one direction----------Plain and Twilled Twined Weave.

2. Warps in more than one direction---------- Lattice Twined Weave.

*C. Weft wrapped (single weft strand doubling around warp elements)----------Wrapped Weave.

1. Warp in one direction----------Plain and Twilled Wrapped Weave.

*2. Warps in more than one direction----------Lattice Wrapped Weave.

†D. Weft locked or imbricate[148]----------Locked Weave.

III. Active element coiled, or coiled along a passive element-----COILING.

A. One element, jointly active and passive----------Crude Coil.

B. Separate active and passive elements----------Foundation Coil.[149]

*285 ● 128 171 Recent classifications based on North American basketry usually recognize five main techniques: plaiting, wicker, twining, wrapping, and coiling, of which the second to fourth are often united as weaving and contrasted with coiling and with plaiting. Schmidt long ago pointed out that such a classification, excellent for most of North America, is very poor when South American baskets are included and that, indeed, the most common and typical of all South American baskets cannot properly be placed in any of these categories. They often have a relatively active (weft) and a relatively inactive (warp) set of elements, and so resemble weaving rather than plaiting, but they are not wicker in any usual use of that word and are not twined or wrapped in any possible sense of those words. On the other hand, they may be made with all the elements about equally "active" or "passive," and hence be considered as plaiting, but the technique and the result are not essentially unlike the more literally "woven" basketry and cannot logically be considered as in a different major category.

Schmidt maintains, and I think with considerable probability, that this most important class of South American basketry is genetically related to plaiting rather than to weaving even though in some variations it falls within some technical definitions of weaving. It probably arose from the still widely used plaiting of segments of palm leaves, left attached to their midrib, and developed in the direction of weaving when unattached fibers, particularly split reeds, were used. Such work did not develop over most of North America because its primitive material, palm leaves, was generally absent there, although some North American work converged toward it departing not from plaiting but from wicker weaving. Thus of the two techniques, even though

148, 149 [see footnotes on pp. 324-25, category 116 - Analyst]

[text continues on p. 183]

*285 128 171 they approach identity in a few cases, one is best considered as a development of plaiting with separate strands begun at an angle and the other as weaving with a relatively more flexible and less inactive warp than in true wicker.

*285 128 In order to accommodate this greatest class of South American basket textiles in the classification I have introduced another category under the rather clumsy but not entirely inept term "woven plaiting," leaving as "weaving," strictly speaking, wicker, twined, and wrapped work in which there is an absolute distinction between warp and weft, and the former is practically inflexible, or at least no special use is made of its flexibility within the weave (but only to shape the whole form of the object woven).

Since it includes almost all the basketry of the Indians under discussion, the subdivision of woven plaiting is of course carried to a much finer degree than that of the divisions that are less pertnent here.

*285 Among these Indians the distinction between woven plaiting and wicker weaving is difficult to maintain and is admittedly largely artificial, although it seems necessary to keep it in a classification of more than local use because as between different culture areas there is an absolute distinction here. It seems probable that what little wicker weaving the Kamarakotos do has simply arisen from their checked woven plaiting in part from the rare use of a relatively inflexible fiber and in part from certain unusual forms in which it is most convenient to hold one set of elements rigidly (whether or not they are inherently flexible) while the other set is woven across them. However, it arose, real wicker weaving is used by the Kamarakotos for flask-like baskets to hold kapok (for blowgun darts) and, more dubiously, on the shallow rims of square trays (matu:tu), but for practically no other purpose.

[171] [286] Lattice wicker and lattice twining are perhaps unknown and certainly rare in this whole culture area. I did not see or hear of any twined basketry among the Kamarakotos, although they use this technique freely in thread-textiles, another small bit of evidence that their basketry is to be considered as an offshoot of plaiting rather than of weaving.[150] Such work, of the simplest sort, is known in this culture area but it is rare and is most likely to be used for things like pot stands that are not baskets and can barely be considered as textile work even in the broadest sense.

[171] Wrapping is even rarer than twining. Plain and twilled wrapped weaving was not seen among the Kamarakotos and is rare or absent over the whole culture area, but a limited use is made of latice wrapping — the Kamarakotos make fish traps in this way. Although it cannot technically be excluded from basketry, I suspect that this technique really has nothing to do with any of the other Kamarakoto basketry and is to be related rather to the techniques involved in house building, especially roofing, that is, simply to the procedure of tying rigid poles together.

150 [see footnote on p. 325, category 116 – Analyst]

*285 171 [128] As regards baskets, this classification is based on that of Roth (1924) with some modification and omission of a few non-Kamarakoto minor subdivisions.

Allied Indians, including the Taurepánes, make a wide variety of mats, trays, and sack- or bag-like baskets by plain plaiting, especially from separated strips of one or two moriche leaves, left attached to the midrib (Fig. 54). Koch-Grünberg illustrates typical Taurepán specimens and Roth illustrates many from British Guiana and gives exhaustive details of their construction. Such basketry, the materials for which are everywhere and require almost no preparation, is very quickly and easily made and can serve almost any purpose to which basketry is put among these tribes (the only important exceptions are presses and sieves), but it is crude, relatively impermanent, and esthetically unsatisfactory and has only speed and ease of manufacture to recommend it. It is the lazy man's basketry and it speaks well for the Kamarakotos that they make almost no use of it. They are, of course, capable of such plaiting and *285 can produce it on order, but they do not like it or ordinarily use it. Aside from large door mats, for which this is the best material and technique, I saw no pieces of plain plaited work actually in use among them and only one, a wakawa', that had been made by them for their use, and this had been abandoned. [178] [797] In marked contrast, the Taurepánes, at least in the vicinity of the mission where native skill seems to be rapidly degenerating, make and use much plain plaited basketry.

The large mats used primarily to close doors at night and secondarily as floor mats and even as sunshades are plaited from two pinnate leaves of palms such as the kunwada. The midribs are laid together to form one edge of the mat and the pinnae are plaited together, usually by single one-over-two twilling, and their small ends braided into an edge for the other side.

The one really native plain plaited Kamarakoto basket seen was a wakawa', which is used in exactly the same way as an akai'. It is made of two split moriche (kwai) leaves, the stems projecting at the upper corners of the back. Back and sides are plaited in one-over-two twill and the ends of the strands braided into loops at the lower corners, then into a lower rim and finally into a median braid up the front (part away from the person carrying), ending freely (see Fig. 55). [482] A back thong is tied to the stems as a head strap.

Turning to more elegant types of basketry, the common mat, o.olori (Fig. 56 C), is made of manare, the commonest basketry fiber, and notwithstanding its simplicity is usually carefully and handsomely made. [171] They are square and are identical with what Roth calls the Akawai fan (indeed he notes that these occur among the Arekunas and are by them also used as mats). They are of closed twilled woven plaiting, constantly one-over-three except at points on the diagonals, edges, and center where variations are required by the pattern. Their peculiarity is that the strands in the two directions are really the same, each strand doubling at the edge and returning into the

285 then straight across the base, then obliquely up the other side, on the oblique opposite to that of its descent. The side weave has the same general character in both but that of the second type is much closer as it has, relatively, twice as many oblique strands.

At the rim the ends of the oblique side strands are gathered into pairs, one from each direction, looped over a split-cane hoop, and their tips woven back obliquely (all in the same direction) into the parts of themselves just below the hoop. In some cases no further edging is provided, but usually another split-cane ring is placed outside the rim and one inside and the whole re-enforced edging then bound together by spiral wrapping, or sometimes sewed and tied with curagua twine. No handle is provided as an integral part of the basket but a simple loop handle, usually a piece of fibrous bark, is commonly added at one side.

The sides of these baskets are usually cylindrical, but they may be slightly or rarely strongly constricted below the rim, making them more flask-shaped (Fig. 59 C).

[17] No single element in their design or technique is unique, but baskets exactly like these seem to be practically confined to the Makuchis and Arekunas and they are very characteristic of the so-called Roroima Carib tribes. They have taken the place of some circular or oval based baskets and of all the open-work rectangular based baskets of other tribes (Roth describes and figures many of these), which are quite unknown to the Kamarakotos and at least rare among the Roroima tribes in general.

The Kamarakoto warakapi (Fig. 59 E) is constructed exactly like a waricha (only the variety with spiral strand in the base was seen) but is relatively greater in diameter and much less in depth and usually has a permanent handle. This is a loop of spirally wrapped wadapi across the middle of the rim.

Another basket, the eno-saramba, differs from the waricha only in being without any extra strands, leaving the weave a plain, widely open hexagonal lattice. It may be used like a waricha, but is not as good for similar purposes, and the special reason for its construction is to use as a bird cage. A stick is pushed through the mesh and the rim is squeezed together and tied, for which purpose it is left more flexible than in the waricha.

The only circular or elliptical based basket made or used by the Kamarakotos, which is also the only one that is woven rather than woven plaited throughout, is the trimuii (Fig. 67), the small, inflexible basket that is attached to a dart quiver and used to carry a supply of kapok for putting the basal wadding on [28] the darts. Unfortunately my data on these are imperfect. Both radiate foundation and vertebrate foundation types are in use, but these are often obtained by trade and I am uncertain what type is woven by the Kamarakotos themselves, or whether both or neither are. Because of this uncertainty I do not give a de- [114] tailed description. For the distinctive characters of both types, reference may be made to Roth (1924).

[text continues on p. 194]

*286 482 sides and at the bottom by a high, continuous rim of basketwork, but not at the top. In the akaiʾ the weave is the same throughout and consists of any type of lattice, that shown in Fig. 65 B being most common. In the koataiʾ the bottom is of closed twill, usually with a repeating square spiral pattern, and the sides are latticed. In both the bottom strands are continuous with those of the sides. The sides are never of closework. This basketry is bound all around the edge with split lianas in various ways like those already described for split-cane re-enforced edging on baskets. The back is re-enforced by a rectangular frame of four sticks placed inside but with the ends projecting through the basketwork, lashed with wadapi and also tied to the basketry with curagua twine. Outside the basketry, beneath the longer pieces of this inner frame, two considerably heavier sticks are lashed. A small liana or a split large one is fastened at each bottom lower corner, outside, bent over the rim, and passes down to the same corner inside. A brace of spirally wrapped wadapi runs from the edging at each top outer corner to the top edging of the back piece and another, shorter, from the free part of this to the edging between its two attachments. Finally, a stout cotton cord, to be used to anchor the lacing of the load, is usually permanently looped all around the edging and a more slender, long piece, to use as lacing, is tied to this at some point. Carrying straps, usually of bark, are attached to the heavy sticks outside the base, one to go over the head and two to slip up the arms over the shoulders, although either the head strap or the shoulder straps may be omitted. Among the Taurepánes and apparently most [462] other tribes, these are used by men and women. Among the Kamarakotos they [184] are, like all basketry, made by men but except in very unusual circumstances only the women use them, the man's back-pack being quite different (see "Transportation") and not of basketwork.

*285 411 As regards the dart-quiver, nõi-yę (Fig. 67), I am in the same position ● [128] as regarding the kapok basket that accompanies it. I cannot be certain that any particular specimen examined was really of Kamarakoto manufacture. [237] The mode of construction is also largely concealed in the finished article, which is all I have seen, by its being heavily covered with beeswax. In this case, however, all are nearly the same in construction and since the Kamarakotos do make some, a general description must apply to their work. The inside of the quiver is a separate basket (sewn to the outer layers) which in the cases I have seen has a square single-hourglass base and all-over twill sides. This is surrounded by at least one and apparently several other layers of heavier basketry, forming a long cylinder flaring at both ends. The upper end is left open, its thick edge neatly braided, and the lower end closed with a circular plate cut from a calabash, tied in place with curagua twine. Except for this [283] base and the upper rim the outside is heavily smeared with beeswax. At about the middle a wide spiral wrapping of moriche cord is tightly applied over the beeswax, and into this is bound a short loop, just long enough to slip over the

[text continues on p. 198]

531 532 which a design had been painted, although this is common practice among many Indians of this general part of South America, e.g. the Waiwais. The nearest approach toward any purely graphic impulse that I saw was the occasional scratching of drawings on mud walls of houses. These were puerile in the extreme and resembled the first attempts at drawing by an infant in our culture, with no real intent or result of embellishment.[162]

Musical Instruments

114 534 The musical instruments of all the South American Indians have recently (1935) been elaborately monographed by Izikowitz, who is mainly followed in the following brief summary of Kamarakoto instruments. Original descriptions of such instruments among allied tribes are of course given in the various works of explorers particularly Roth and Koch-Grünberg. [128] My observations on Kamarakoto instruments are not exhaustive, but include all the common instruments. Those observed may be inserted in Izikowitz's classification as follows:

534

I. Idiophones.
  Percussion.
  Rattles.
    Jingle rattles . . . . . 1. Seed-shell necklaces, limb-bands, etc.
    Hollow rattles . . . . . 2. Gourd rattles.
    Stamping tubes . . . . . (Probably occur but were not seen.)

II. Membranophones.
    Two-headed drums . . . . . 3. Dance drum.

III. Cordophones (not used).

IV. Aerophones.
  Free . . . . . (Buzz-disc known, but not really used as a musical or sound-producing instrument.)

  Valve.
    Simple trumpets . . . . . 4. End-blown wooden trumpet.
    5. Side-blown horn trumpet.
  Reed instruments (not observed).
  Flutes
    Ductless
      Transverse, with stops 6. Side-blown flute.

162 [see footnote on p. 326, category 116 - Analyst]

534 The
177 Kamarakotos do not signal with trumpets and were using their cow-horn trumpet
202 along with the native kamai in dancing. They call it by the colloquial Spanish
[525] word "cacho" (kacho).

534 6. Without prompting, native informants spoke of a side-blown flute,
171 called naunau. Such flutes, highly variable in detail, are common in the
Guiana region (Roth, Izikowitz) and are known from the Taurepáne (von
[128] Hornbostel). Unfortunately I can give no reliable details because no naunau
was owned by any of the nearby Indians and I could find no one who would make
one, although several professed acquaintance with it.

534 7. One of the commonest and, to our ears, by far the best of Kamarakoto
instruments is an end-blown duct flute with deflector and stops, or a plug flute
[124] (in Izikowitz's terminology), in other words, a native flageolet. The generic
name for this is lue (or rue — whence the place name Luepa in the Gran Sabana),
from the reed of which it is made, and the commonest variety, a small flageo-
[237] let, is called kaikara.[163] The kaikara has a proximal beeswax deflector, leav-
ing only a narrow superior air passage, and four primary stops. These, as well
as the sound orifice immediately distal to the deflector, are made by burning.
The most proximal of the four stops is placed at one-third of the distance from
distal to proximal ends of the instrument and the other three stops evenly spaced
between this and the distal end. A supplementary stop, thumb hole, is placed
on the lower surface immediately below the first (most proximal) primary stop.
This is stopped by the left thumb, while the left index and middle fingers cover
the first two stops and right index and middle fingers the two more distal stops.

This instrument has a rather weak but pure and pleasing tone not unlike
that of a European flute and with considerable range and variety so that, unlike
any other Kamarakoto music, skillful playing on it was enjoyable to our ears.
[538] It is used in some dances, notably the tukúi? (not the parichara), and, unlike
[533] any other instrument as far as we observed, it is also played (by men only) for
simple pleasure and entertainment. I have even seen a young man wandering
along by himself across the sabanas happily playing really pretty snatches of
melody on a kaikara as he went.

534 Izikowitz has shown that flutes of almost innumerable varieties are es-
17 pecially characteristic of aboriginal cultures in South America. In his class of
plug flutes, to which the typical Kamarakoto flageolets belong, he distinguishes
a purely Indian, pre-Columbian type, of which the kaikara just described might
almost be taken as the prototype or classic example, as well as types modified
under European influence and others which are native copies of old European
models. The Kamarakoto flageolets show no trace of European influence.

As a supplement to this review, it seems advisable to list a few instru-
ments not observed among the Kamarakotos but known among nearby tribes of
similar culture:

163 [see footnote on p. 326, category 116 - Analyst]

643 The extent of this authority, such as it is, is most ill-defined. It does
631 not clearly and definitely extend beyond the central group of the Kamarakotos and even here many of the Indians never have practical occasion to recognize it, although none would deny it. The Kamarakotos and Kamarakoto-like Indians of the Caroní and other more remote parts are aware of the cacique only when they have occasion to visit the central group. They appear to have no cacique of their own and those that did visit the central group during our stay verbally recognized the authority of this cacique. He submits that his authority does extend widely into this outer region (with which he himself was almost entirely unacquainted until our visit) but in fact his power there is not even nominal. Even in this extremely attenuated way, it is completely false to speak of him as in authority over all the Arekumas, including those of the Gran Sabana and the Taurepánes, although this was claimed for him. The Arekumas as a whole do not have any one chief, and many of them acknowledge no authority
[619] outside their own settlements. It would be improper to speak of an Arekuma tribe, since the Arekumas are not an integrated unit, either ethnically or politically, but an agglomeration of small, physically and culturally related but quite distant groups.

562 Schomburgk speaks of (uncommon) cases of female chiefs among the
622 Makuchi. Among the Kamarakotos no woman is ever a chief, either over a
643 household or over a larger group, although otherwise women are by no means
151 treated as inferior beings.

Relationship Concepts

602 As with many primitive peoples, concepts of family relationships in Ka-
601 marakoto are more complex than in nations of European origin, are more spe-
114 cific, and rest on a different basis. Most vocabularies, including even the unusually fine Taurepán vocabulary of Koch-Grünberg, give an imperfect idea of these relationships. This is usually because the investigator tends to seek the Indian equivalents of the words of his own language, a system adequate for obtaining names of objects and for many other purposes but quite inadequate when, as with relationships, the concepts expressed in the two languages are
[128] far from being the same. The following carefully checked information was obtained in several different interviews by postulating many different sorts of family groups and asking what each individual in the group would call each other
[128] individually. This is a field in which an outside investigator could probably never achieve absolutely complete knowledge, at least not without many years of actual membership in the tribe, but the following account is believed to be nearly complete and essentially correct. Comparisons are made chiefly with

754 and the boy returned, took to his hammock, developed a high fever, and was
[297] at death's door when he was finally saved by the priest's confessing his fault to
[128] the boy and withdrawing the kanaima influence. I personally did not witness such a case, but some of the cases of illness related to me by the Indians appeared to involve no possible physical cause and the statements of reliable non-Indian witnesses, traveling both among the Kamarakotos and among several allied tribes, leave no doubt that such cases do really occur.[175]

Other Medical and Similar Magic.

755 Although the piache is the magician and the physician, the use of magic is not entirely confined to him. There are some spells, not the exclusive property of the piache, that can be recited by the victim and by his friends, although these apparently are not considered really effective in severe cases or cases surely involving a kanaima. Koch-Grünberg gives the texts of several such spells from the Taurepáng. Some of them are related to birth, puberty, and other critical physical events and they constitute a simple sort of medical ceremonial which has magical implications but which cannot really be called religious. The idea of invocation of supernatural beings, an essentially religious aspect that is present in the activities of the piaches, is very attenuated or quite absent in these.

755 There are also medical dances which are analogous to these simpler
535 spells and are called generically eremba. The most common is the okŏyima-eremba, "big snake medicine-dance," which is effective against real bites and against ulcers, which are theoretically believed to be bites. No special costume is worn except bead necklaces and unlike social dances the men and women dance in separate groups. The dance begins at dusk and continues until the following dawn.

756 There is also a piache's dance, called mari, which is danced by every-
535 one but led by a piache who sings and shouts. I could learn of no special religious significance for this dance but its ascription to the piache (whereas ordinary social dances are led by the cacique or any competent to?-esa?) suggests that it must have had some such particular significance originally.

535 It is probable that most dances once had some magic significance if they
[289] did not definitely arise as magic or religious ceremonials. Thus the parichara
[533] songs given elsewhere are in effect quite typical hunting spells. The present-
[224] day Kamarakotos, however, informed me that the dances (excepting the eremba, of course) have for them absolutely no utilitarian, magical, or religious significance and that they are danced solely for pleasure. Certainly they are not treated as anything mystical and show no trace of true ritualism.

224 Aside from medicine, magic does not figure to any great extent in Kama-
[289] rakoto life but there is some hunting magic. Typical hunting magic with a

175 [see footnote on p. 328, category 116 - Analysis]

Burial.

764 Burial customs are usually very revealing regarding religious beliefs and while those of the Kamarakotos, to the extent that I know them, are less so [128] than usual, they are best mentioned here. Since we were fortunate in that none [124] of the Indians died during our stay, my acquaintance is based on examination of graves[176] and statements of the Indians, checked and weighed as to their [178] reliability. Here the "progressive" policy of a few leaders is having a definite effect and it is necessary carefully to distinguish old custom from present tendencies.

766 A toʔ-esaʔ (head of a household group) is still often buried in his house and probably was invariably so interred in former times. Thus the former owner is buried in the abandoned dwelling at Uruyén and I have indicated his grave on the plan (Fig. 6A). This grave is built up with sticks and mud so that it projects about 50 cm. above the ground and must extend about an equal depth below the surface. The exposed superstructure is rectangular and about one meter square in plan. The body inside is said to be in a crouching position on its haunches, which is concordant with the otherwise peculiar form of the grave. [768] No one but the toʔ-esaʔ is buried in a house and since the house is always abandoned when its master dies anyway, no one lives in a house containing a grave. [769] There is, however, no apparent fear of this grave (or any other) or of the house, which is freely entered if occasion arises.

764 Persons other than a toʔ-esaʔ were not buried in houses but in the open nearby, each inhabited place usually having a patch of sabana that serves as a cemetery, although nothing but the presence of the graves distinguishes it. Everyone was formerly buried in a crouching position, but not in urns or baskets. [178] Now burial in the supine position is common, but this reflects the "progressive" influence. Only one body was, or is, placed in each grave. Sometimes items of personal property are buried with the body but this is neither usual nor obligatory. [768] Most personal property continues in use by other members of the household or, if not immediately needed, is abandoned and may be taken by any comer. Graves outside the house, like that described in a house, were formerly lined and roofed with sticks and mud so that dirt piled on top did not touch the body, but they did not generally protrude above the ground. This lining or roofing is still sometimes provided, but is no longer invariable. Some of the old houses with graves were burned, but this seems to have been rather a casual act or a mere accident from firing the sabanas than a ceremonial duty and certainly is not considered necessary.

765 178 It was formerly the custom to dig up the bones after an interval of about a year, clean them, and keep them in a chest or basket, but this custom is said to have been entirely abandoned long since and we saw no evidence of it.

176 [See footnote on p. 328, category 116 — Analyst]

868 Children generally follow much the same occupations as their elders of
857 the same sex, beginning by playing that they are doing so, as our children "play house," and ending by performing the actual work as they become capa-
524 ble of it. Their playthings, too, are almost invariably small replicas or imita-
[868] tions of objects used by their elders. Thus the first toy of a small boy is commonly an improvised bow, with which he "plays Indian," as a white boy might (Fig. 79). Some of the boys show great ingenuity in making imitations of weapons, tools, etc.[181]

The Kamarakotos make cat's-cradles, but I did not attempt to collect
[121] these. I saw none not already recorded from the Maiuchis or Akawais (see es-
[114] pecially Roth, 1924, whose elaborate compilation of these string-figures includes all that I saw among the Kamarakotos).

Mythology

773 Like all Indians, the Kamarakotos have an extensive body of myths and
[78] legends. It is probable, however, that these are already dying out to some extent, since few of the younger members of the tribe seemed to have much knowledge of them or to take much interest in them except as casual stories. Un-
[24] doubtedly, a great many are still accurately known, but our time permitted the textual record of only one.[182] This is a typical, representative example and serves excellently to illustrate the characteristics of Kamarakoto mythology and its probable sources and relationships.

539 Rigid accuracy and authenticity may be claimed for the text here given.
126 despite the linguistic and other difficulties. It was told to me by Antonio
128 Montesdeoca during four sessions in March, 1939. Antonio gave the story not
[115] only from his own memory but also from the collected versions of numerous other members of the tribe, several of whom were present at each session and who were carefully consulted on all doubtful points. The story as a whole was translated into Spanish by Antonio, with passages also given in Kamarakoto by him and by others present. I recorded it in English and then read it back, in Spanish, section by section, to Antonio who carefully corrected the slightest
[538] deviation from the meaning of the Kamarakoto text.[183] The Kamarakoto text itself is not verbally memorized and varies with the teller, but its sense is invariable and this procedure guarantees that this sense is fully retained in the present version.

The Story of Maichak.[184]

539 Maichak was an Indian who lived a long time ago in what we now call Kamarata. At that time, men lived for centuries and centuries. When Maichak

181-184 [see footnotes on p. 329, category 116 - Analyst]

126 purposes analyses and comparisons of the various groups are adequate and more important and comprehensible than would be publication of all the raw data.

Kamarakoto measurements may be assumed to include only individuals from what I have called the central group. More remote individuals could not have been included in the correct proportions and would have made the homogeneity and representativeness of the sample uncertain. The central group samples are excellent and give good information on the population even though the samples are small. They necessarily include only individuals who visited camp and could be persuaded to be measured, 237 but any bias caused by this selection was carefully watched for and is believed not to have affected the final sample. The various subsamples (adult males, etc.) have been checked for age, geographic, and family distribution, and found to be distributed in all these respects in a way that would normally occur in completely random sampling with the entire central group available.

126 561 Measurements of children, although usually avoided by anthropologists, were also taken because they can provide interesting data on growth and no such data have hitherto been available for any comparable group. The records were, of course, carefully isolated from those of the adult groups. For the latter, three samples were separated: young adult males, fully adult males, and adult [589] females. The first is the bachelor group, which I have mentioned before as a concomitant of polygamy. They are fully mature but young men (probably around 20 years of age) who are considered to be adult and marriageable but are not yet married. At the time of recording they were believed to be fully grown, but the figures now reveal that as a group they are slightly but significantly smaller than the fully adult men. The latter are those who are certainly fully grown, married, and with children and include various ages, probably all between 20 and 50, in about the same proportions as the tribe as a whole. Among the women no young adult group can be distinguished and perhaps one or two recorded individuals had not quite reached their full stature, but if so this cannot have altered the data significantly.

● 128 141 In all the following tabular matter R = observed range, M = arithmetic mean, = standard deviation, V = coefficient of variation, d = deviation from the arithmetic mean, N = size of sample, P = probability of equal or greater deviation in random sampling of one population (as a fraction of 1.00), and X = an individual measurement, standard, not probable, errors are given. The word "significant" is used in all following paragraphs only in a fully technical sense and means that an objective statistical test of significance (using d/ = 3 or P = .01 as the limit unless otherwise stated) has been applied, even when the details or numerical results of such a test have not been explicitly published here.

141 The pertinent data for the three adult Kamarakoto groups are as follows:

237 [see footnote on pp. 334-335, category 116 - Analyst]

141

Adult Female Kamarakotos; N = 14

	R	M	σ	V
Head length	169 - 186	177.1 ±1.3	4.7 ± .9	2.6 ±.5
Head breadth	146 - 159	150.9 ± .9	3.3 ± .6	2.2 ±.4
Head index	80 - 88	84.7 ± .6	2.4 ± .5	-------
Stature	136 - 155 1/2	146.9 ±1.2	4.6 ± .9	3.2 ±.6
Sitting height	71 - 82	77.1 ± .7	2.8 ± .5	3.6 ±.7
Stature less sitting height	65 - 77 1/2	69.8 ± .8	3.2 ± .6	4.5 ±.9
Span	143 - 163 1/2	152.0 ±1.4	5.2 ±1.0	3.4 ±.6
Weight	80 - 120	103.6 ±3.3	12.2 ±2.3	-------

[[28]] The Taurepán samples are not as good as the Kamarakotos. They are somewhat too homogeneous, being mostly from one section of this far-flung tribe and including too high a proportion of individuals of about the same age to be surely representative of the tribe as a whole. Although all are adult, the males, particularly, average younger than the fully adult Kamarakoto male sample and younger than the adult Taurepán male population. The measurements cannot, however, be very different from the Taurepán norms, and their use in comparisons cannot be seriously misleading if their incompletely representative character is borne in mind.

Adult Male Taurepanes; N = 12

	R	M	σ	V
Head length	179 - 191	184.3 ±1.1	3.7 ± .8	2.0 ±.4
Head breadth	147 - 161	154.2 ±1.3	4.5 ± .9	2.9 ±.6
Head index	79 - 89	83.2 ± .8	2.7 ± .6	-------
Stature	152 - 161	156.9 ±1.0	3.3 ± .7	2.1 ±.4
Sitting height	79 - 87	82.4 ± .6	2.1 ± .4	2.5 ±.5
Stature less sitting height	70 - 79 1/2	74.5 ± .8	2.8 ± .6	3.8 ±.8
Span	156 - 170	164.4 ±1.2	4.2 ± .9	2.5 ±.5

Comparisons

141 It is manifest that the Kamarakotos show very marked sex differences of the expected sort, that is, that the men average noticeably larger than the women in almost every dimension. This is confirmed by the following table:

Comparison of Male and Female Adult Kamarakotos

	a. Male mean	b. Female mean	a - b
Head length	186.9	177.1	9.8
Head breadth	154.2	150.9	3.3
Head index	82.2	84.7	-2.5
Stature	160.0	146.9	13.1
Sitting height	84.8	77.1	7.7
Stature less sitting height	75.2	69.8	5.4
Span	169.0	152.0	17.0
Weight	123.7	103.6	20.1

These differences are all statistically significant. The only one not obviously so is that of the head indices and for these means d/σ is 2.9, which indicates almost certain significance. It is somewhat unexpected to find that in this tribe there is a definite secondary sex distinction in head proportions and that women are on the average distinctly more brachycephalic than men.

The same sort of difference appears among the Taurepáne and Farabee also noted it among the Makuchis and some other British Guiana tribes, including some Arawaks. The difference has not been shown conclusively to be significant in these cases, but it is so widespread and consistent that it doubtless will prove to be statistically significant.

162 142 [201] Living within the Kamarakoto tribe as members of it there are two adult Indians (also several children, not specifically discussed here) who are not of Kamarakoto descent. Their own statement is that they are Arekunas from Luepa (i.e. from anywhere in the northern Gran Sabana). I do not know the Arekunas of that region well, although I have seen some twenty or thirty of them, but these two individuals have a distinctly non-Arekuna look (Fig. 95) and it is at least possible that their ancestry was partly or wholly non-Arekuna, although doubtless Carib. In the measurements here used, they compare as follows with the comparable pure Kamarakoto samples. They are, of course, in all cases excluded from the group data for Kamarakotos. 141 [128]

P 141 These differences are all far from significant. As regards these measurements the Kamarakoto and Taurepán samples, both male and female, could P [14] [10] have been drawn from a single very uniform population. The suggestion is that the Arekunas as a whole present a rather uniform physical type, which is fully supported by the more subtle factors of appearance, and, of course, that the P Taurepánes are Arekunas, which is further supported by their culture and lan- M guage.

128 The Kamarakoto and Taurepán samples are absolutely comparable (allow- 141 ing for recorded defects of representation in the latter) because taken by the 114 same observer in the same way. Wider comparison introduces a possible personal element but there is little reason to doubt that Farabee's measurements, the only ones of much importance for wider comparison, are sufficiently comparable. His male Makuchi sample is larger than any one of my samples (30 to 33) and has an apparently representative age distribution. His corresponding female sample is small (10 to 13) but sufficient for comparison. It contains two fairly distinct age groups within the adult series, one of five women 25 and below (by his estimates of age) and 141.3 cm. in average height and the other of four women 40 and above and 144.4 cm. in average height, so that two adult P growth levels occur, but the sample as a whole seems to be of about the same M average age as mine.[238]

141 The comparisons are as follows:-

Comparisons of Means for 15 Kamarakoto Adult Males and 30 to 33[239] Makuchi Adult Males, the latter after Farabee

	a. Kamarakotos	b. Makuchis	a-b	P
Head length	186.9	184	2.9	.11
Head breadth	154.2	148	6.2	<.01
Head index	82.2	81.0	1.2	.13
Stature	160.0	156.0	4.0	<.02>.01 (nearly .01)
Sitting height	84.8	81.0	3.8	<.01
Stature less sitting height	75.2	75.0	.2	---
Span	169.0	164.3	4.7	.02

238-239 [see footnotes on p. 335, category 116 -Analyst]

[text continues on p. 296]

P M 141

Comparisons of Means for 14 Kamarakoto Adult Females and 10 to 13[240] Makuchi Adult Females, the latter after Farabee

	a. Kamarakotos	b. Makuchis	a-b	P
Head length	177.1	172	5.1	<.02>.01
Head breadth	150.9	144	6.9	<.01
Head index	84.7	84.0	.7	---
Stature	146.9	142.8	4.1	.02
Sitting height	77.1	74.9	2.2	.07
Stature less sitting height	69.8	67.9	1.9	---
Span	152.0	151.9	.1	---

P M [128]

In making the comparisons the standard errors of the differences between the means have been calculated by the formula assuming (as is the case) that the populations are distinct and comparing only means. Where no value for P is given, the deviation is obviously not significant.

In every case the Kamarakoto averages are larger than the Makuchi, although the differences are not all statistically significant. Among the men, the Kamarakotos almost surely are significantly taller, have wider heads, and greater sitting height. The leg length is not significantly greater, so that the greater height is in the torso and the legs are proportionately shorter. The span is greater. The Kamarakoto women likewise are taller, probably significantly, and have larger heads than the Makuchis. The span is not absolutely greater and is proportionately less, but not surely significantly. The torso-leg proportions, unlike those of the males, are about the same in Kamarakoto and Makuchi females.

P M [101]

That the Kamarakotos and Makuchis are physically distinct, despite their resemblance in appearance, culture, and language, is evident even on the basis of these few measurements. This tends to support my classification of Makuchis in a general Roroimá group but as distinct from the Arekumas, with both Kamarakotos and Taurepánes placed as tribes of Arekumas.[241]

Growth

P 128 145 [114]

Absolute growth plotted against time cannot yet be studied for these or any allied Indians because none of them are of known age and no interested and competent observer has ever lived among them long enough to follow the growth of individuals over a known span of years. Estimates of absolute age are manifestly too unreliable to serve as a basis for detailed study. Relative age can, however, be judged within limits narrow enough to be of some use. Thus the

240, 241 [see footnotes on p.335, category 116 – Analyst]

Thus the
128 15 male children of pure central Kamarakoto stock that I measured can, with
145 a single exception, be placed with almost complete certainty into three groups
141 such that the relative ages of the groups are known and it is known that there is no overlap between them, even though the relative ages of individuals within a single group may still be uncertain. Omitting the one doubtful case, (who might belong either in group C or group D), the mean measurements of these groups, in comparison with young adults and full adults, are as follows:

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Growth in Male Kamarakotos

	a. Mean of 4 children about 2-5 years old	b. Mean of 5 children about 7-9 years old	c. Mean of 5 children about 10-13 years old	d. Mean of 9 young adults	e. Mean of 15 full adults
Head length	171.5	175.8	180.4	185.7	186.9
Head breadth	141.5	146.6	148.2	152.4	154.2
Head index	82.5	83.8	81.0	83.2	82.2
Stature	95.4	126.8	146.7	155.0	160.0
Sitting height	54.0	67.8	75.2	80.9	84.8
Stature less sitting height	41.4	58.0	68.4	74.1	75.2
Span	96.0	122.4	150.2	162.4	169.0
Weight	26.2	52.0	81.0	112.2	122.7

126
123 Only eight female children were available for measurement, the females in general being less employed by us as workers and somewhat shyer about visiting our camp, where measurement was practicable. Three of these were of so nearly the same age that relative ages could not be certainly judged, but the others fell into a clear sequence, as follows:

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Growth in Female Kamarakotos

	No. 52, about 3 years old	No. 64, about 5 years old	Mean of Nos. 29, 32 & 51, about 6-7 years old	No. 50, about 8 years old	No. 27, about 10-11 years old	No. 61, about 15 years old	Mean of 14 adults
Head length	158	170	166	181	177	173	177.1
Head breadth	136	143	140	148	150	157	150.9
Head index	86	80	82	82	85	91	84.7
Stature	92	107	113	134	143	146 1/2	146.9
Sitting height	51 1/2	59	60 1/2	73	73	76	77.1
Stature less sitting height	40 1/2	48	52 1/2	61	70	69 1/2	69.8
Span	92	108	114	138	148	157	152.0
Weight	30	35	40	65	85	85	103.6

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The available data for male children and young adults, of whom 24 of central Kamarakoto stock were measured, in addition to the 15 older adults, provide (apparently for the first time) an opportunity to study relative growth in such a relatively pure and primitive human stock. This rather lengthy study is not within the proper scope of the present work, but in order to make the important data all available here in most convenient form, a tabulation of the linear measurements of these individuals (omitting the oldest group in which no determinable growth occurs) is presented below. Logarithms are given instead of raw measurements because the latter should be turned into logarithms for clearest study of relative growth in any case and one step is thus saved the reader without using any more space here. The sequence is that of stature.

[4305]

FOOTNOTES

114 1. Koch-Grünberg wrote that they are forest Indians, but he did not know them and based his natural but incorrect belief on the likewise erroneous opinion that there were no sabanas appropriate for such Indians west of the Gran Sabana.

101 128 2. In such connections I see no way to differentiate the tribal Indians and civilized Venezuelans except by calling the latter and not the former "Venezuelans" or by long and cumbersome circumlocution. Of course, the Indians are Venezuelans also, and I do not mean to imply that they are not. To speak of the northern, the civilized, Venezuelans as "whites" would be an injustice to the great mass of them who are not white but who are highly civilized in a European sense. To speak of them, according to frequent Venezuelan custom, as "rational" ("racionales") in opposition to "Indian," is an even greater injustice to the Indians, who are in every way quite as rational as anyone else. Therefore, in the present paper generally when I speak of Venezuelans I mean those who are not tribal Indians.

101 114 3. Koch-Grünberg and some others following him have distinguished the Taurepanes from the Arekunas, but I shall show that it is both more convenient and more correct to consider them as a tribe of Arekunas.

114 4. Of course, this includes a great variety of different races and tribes, not all particularly comparable with the Kamarakotos and none quite like them. It is perhaps ungracious to criticize any aspect of Roth's splendid work, but in practical use it has the slight defect that it is sometimes hard for the reader to be sure to what exact local group a given datum applies, and still harder to visualize from it the elements that actually occur together to form the culture complex of any one group.

194 197 15. But Taurepán diaphones of the same word do tend to become bi-syllabic. Among them o.ũna was also recorded but õ.ina and õina were also heard and one speaker used the remarkable variant ina in which even the diphthong disappears in favor of a simple vowel and the n is palatalized.

16. It is interesting that this instance of a double vowel does not occur in Taurepán, in which I heard the cognate word pronounced worũwori and wõrowori.

194 17. I use this unorthodox category because the phoneme r-l is not typically a true fricative nor a true lateral, but something of both of them and also of a plosive and even of a semi-vowel. It seems simplest just to call it a flap, which is fairly descriptive and distinguishes it from the wholly distinct fricative r.

Symbols in parentheses represent subsidiary members of phonemes of which the principal members are classified elsewhere. Symbols connected by hyphens belong to different members of the same phoneme.

● [128] 18. Nasals in Kamarakoto have a tendency to produce voicing in the following consonant and I now suspect that some of the sounds that I have written as b, especially after nasals, are really members of the p - phoneme, but I cannot now correct my records. In any case the pronunciation is not significantly falsified and may even be better, for Spanish or English speaking persons, than if the correct phoneme-symbol had been used.

19. Here, too, I suspect that some sounds recorded as d, especially after nasals, really belong to the t phoneme, but if so, the spelling here given conveys a better idea of the sound to the Spanish- or English- adapted ear.

20. Except as purely non-functional "grace-notes" in sliding to and from palato-velar stops. A sound in this group analogous to the incompletely stopped forms of b and d would resemble the Spanish j.

21. An occasional exception was recorded, as in the word tsigerende, but this is not a fully voiced lenis g but a semi-voiced fortis sound arising from incomplete cessation of the voice between i and e and it does belong to the k-phoneme. The phenomenon involved is well illustrated by the fact that when an informant was asked to repeat the word gwai slowly he said kə-wai — upon being removed from the influence of the following w the guttural lost its voicing.

22. This is well illustrated by Koch-Grünberg's treatment of the closely similar Taurepán sound. He usually writes it as g, but after i he often writes it d. It might be argued that ' is merely an artificial grouping of members of the d or t and k-g phonemes, especially as it is almost invariably terminal and d, t, k, and g never are. Carefully noted, however, it is quite distinct in

291 127. Even if we agree, as I do not, that the Caribs wore no clothing
177 whatever before contact with Europeans, Alejo's date is too late by a century
[114] or two and it is virtually impossible that any authentic tribal memory is as old as that.

[123] 128. The women would never visit us except in dresses — I shall show
[562] on a later page that this was because of pride, fashion and authority, and not because of personal modesty or fear. They either stayed at home in the remoter places that we did not visit, or borrowed dresses for the occasion. The men wore trousers if they could, but had no hesitation in visiting us without them.

129. But by the time we left, the cacique was more conventionally clothed than we were and would have excited no comment on any city street. No other Indian achieved quite this degree of sartorial splendor.

130. Our party did supply them with some ready-made dresses, but this is a momentary phase. The women of the tribe as a whole are adopting and will soon universally wear the homemade costume described.

294 131. This and the following paragraph are by my wife, Dr. Anne Roe.
114

171 132. In fact many culture traits common to these Indians and the civilized part of Venezuela are not evidence of Venezuelan influence on the Indians but of the reverse.

291 133. except one Taurepán mosa that was not made for use but as a curio
126 for a missionary, who supplied the heads. Very misleading data are sometimes
● 128 given by such made-to-order specimens and I may emphasize here that I have described nothing that was not seen actually in use by the Indians and collected nothing but used objects or, when this was impossible, new ones made for use and carefully compared with those that had been used. In the field of their special skills, notably basketry, the Indians can and will supply almost anything that a collector wants, but if he describes what he wishes and has it made to order, the result is likely to be definitely non-Indian in form and design.

114 134. If I understand Roth correctly (this passage is not entirely clear to
301 me), he considers the belief that these bands permanently groove the limbs
304 "ridiculous" and "physiologically impossible" "delusions." Nevertheless it is a fact, fully proven by the plainly visible effects of the bands even when the bands themselves have been removed.

273 574 177. Of course all individuals spend intervals sleeping, but some are awake and hilarious at all times.

533 539 178. This is a free and not a literal rendering. The language of these songs, despite the fact that they can include some improvisation, is not common speech but is "poetic," probably archaic, and is not entirely clear even to all the Indians. The translation given conveys the sense of the words as they understand them.

[198] 179. In prose language the equivalent would be some expression like autsimbe dai?, "I am satisfied, pleased."

535 171 180. The Makuchi song given by Roth refers to the white clay paint, which was evidently essential to the dance in its more primitive or more stereotyped form, but in all the Kamarakoto dances such pseudo-ritualistic compulsions have become voluntary and are often omitted — this is true even of the parichara-pon.

524 153 181. A boy at Uruyén made a remarkably good small model of an airplane, including workable wheels and a propeller that turned in the wind. I could not learn that he received any help or inspiration from more sophisticated sources and he maintained that the work was entirely his own idea and execution, but I find this almost incredible and cannot record it as a fact.

773 182. But as will be seen, this legend or myth is composite and consists of several quite distinct stories united by assigning the leading role to the same character.

773 115 126 128 183. It is interesting, as illustrative of his own comprehension and insistence on the value of complete accuracy, that Antonio himself demanded this procedure and refused to leave a passage until convinced of my thorough comprehension of it.

539 184. This is adopted as the best non-technical transcription of the name maichaŕ.

[415] 185. A small gourd vessel, wai in Kamarakoto.

[825] 186. The kind called atsi:gamo, the Venezuelan "cachicamo."

[834] 187. maraka, a gourd rattle with a wooden handle.

P
123 Mrs. Angel to write down, closely resembles the Kamarakoto words for "die"
126 or "dead." I went over to Uruyén, gathered some of the Indians, explained what "eight" means, and to prove it and reassure them taught some of them to count from one to ten in English — an accomplishment that may puzzle future visitors. They then returned to be measured and no further serious difficulty arose.

M
128 238. He has only one woman estimated to be older than 25 but younger
141 than 40, and I have omitted her from the partial averages given above. His
114 male series does not have such a gap.

P M
141 239. Thirty-three for head measurements, 30 for the others

240. Thirteen for head measurements, 10 for others

P M
114 241. Farabee's outstanding general conclusion was that forest tribes are
128 larger than sabana tribes regardless of race, i.e. that forest Caribs more re-
141 semble forest Arawaks than they do sabana Caribs. He believes that the dif-
101 ference is an effect of environment, especially food. That the somatic differences of these various tribes are to some extent influenced by environment is possible, even probable, but Farabee's conclusion does not follow from his own figures if these are more carefully and correctly examined, and it is quite disproven by the present new data. Although manifestly allied to the Makuchis and just as typically sabana Indians, the Arekumas are at least as large as any of Farabee's forest Caribs, or even Arawaks, which may average a little larger than Caribs in this region. Since Farabee's sabana Caribs are simply the Makuchis, his data would tend to show not an influence of environment regardless of race, as he supposes, but a strictly racial difference. His figures merely suggested, and mine confirm, that the Makuchis are small Caribs, not that sabana Indians are small.

Moreover he has drawn conclusions that his data cannot prove, even if these conclusions are true. His samples of forest tribes are for the most part very inadequate and potentially misleading, and these tribes apparently differ considerably among themselves so that to lump them as one thing and to compare this very arbitrary and artificial average with the Makuchis, a good sample that is of one tribe, can prove nothing. He has also failed to show that his sample differences are significant regarding the populations, or even to consider this problem. It is evident that very few of them, even those used as a basis for strong conclusions, are really significant.